

**Article XII.**—DESCRIPTIONS OF NEW BIRDS FROM SANTO DOMINGO AND REMARKS ON OTHERS IN THE BREWSTER-SANFORD COLLECTION.

BY FRANK M. CHAPMAN.

Mr. R. H. Beck, who for the past three and a half years has been collecting birds for Mr. Frederick F. Brewster and Dr. L. C. Sanford, chiefly on the coasts of southern South America, has recently passed several months in the island of Santo Domingo. He has worked on the coasts, and has also penetrated the little-known mountainous interior of the island. His collections from the last-named region contain several species which appear to be new to science, and also an excellent series of the forms of Andean White-throated Sparrow and White-winged Crossbill, discovered by Dr. W. L. Abbott in Santo Domingo in the fall of 1916, and heretofore known only from the specimens collected by him.

Mr. Beck's field-notes will not, unfortunately, be available until he returns to this country later in the year. Meanwhile, I append descriptions of the supposed new birds he secured, together with comments on the Sparrow and Crossbill discovered by Dr. Abbott.

***Oreopeleia leucometopius* sp. nov.**

*Char. sp.*—Similar to *Oreopeleia caniceps* (Gund.), but forehead white rather than gray, crown, nape, and sides of head slate instead of gull-gray; back slightly darker, more bluish; wing-quills darker, with less russet or cinnamon; emargination of primaries nearer the tip; sides of breast more extensively metallic purple; ventral region more russet.

*Type.*—Collector's No. 7087, Brewster-Sanford Coll., ♂ ad., Jan. 27, 1917; Mt. Tina, Prov. Azua, R. H. Beck.

*Range.*—Known only from Mt. Tina, Túbano, and Las Canitas, Prov. Azua, Santo Domingo, W. I.

*Description of Adult Male.*—A broad white frontal band, slightly tinted with buffy (stronger in immature birds), reaches to above the eyes, its posterior margin is rounded, and the tips of the feathers are there grayish, but the band is clearly defined from, and in striking contrast to, the greenish slate of the crown, occiput, nape and sides of the head; hind head and nape more or less margined with metallic purple; head all around well defined from the metallic mulberry purple of the back and scapulars, which extends broadly to the sides of the breast, and, in some specimens, leaves only a narrow greenish slate pectoral strip; rump and upper tail-coverts ranging from acetin to dark dull bluish violet; tail-feathers uniform dark neutral gray; wings externally dark mouse-gray; inner webs of primaries and outer

secondaries tawny russet, except at the tip; outer webs of five outer primaries more or less narrowly margined with tawny russet on their median portion; wing-coverts olivaceous, the inner, and to some extent, lesser coverts more or less strongly the color of the back; edge of the wing slaty; under wing-coverts cinnamon, tipped with slate; throat slaty, the white bases of the feathers more or less evident, especially on the chin; center of the breast darker and more or less washed with greenish; sides of the breast of the color of the back; sides slaty, the center of the abdomen grayish; ventral region, flanks and lower tail-coverts russet to hazel, paler on the vent, the flanks and lower tail-coverts glossed with purplish; "feet pink; bill red, tip pink; iris reddish" (R. H. B.).

*Description of Adult Female.*— Resembles the adult male in color.

*Description of Young (both sexes).*— Frontal band very narrow and not sharply defined from the brownish or slaty of the rest of the head; back merely washed with metallic purple; sides of the breast more or less rusty or cinnamon; violet-blue of rump less strong; wing-quills all more or less narrowly margined, and wing-coverts all tipped with cinnamon or russet; throat whiter, underparts more or less tipped with cinnamon or russet; abdominal region largely grayish brown; flanks and lower tail-coverts paler; "feet flesh-color; bill brownish; iris brownish" (R. H. B.).

#### Measurements.

	Wing	Tail	Tarsus	Culmen	Notch in second primary, from tip
Five Males	146-156	88-102	34	15	52-57 mm.
Five Females	144-150	85-91	32	14	51-54 mm.

*Remarks.*— While this new species and *Oreopeleia caniceps* of Cuba are obviously representative forms, the nature of the characters by which they are differentiated appear to be of specific value. The color differences are sufficiently pronounced to be more than differences of degree, while the unusual character supplied by the emargination of the second to fifth primaries (from without) is also evidence of prolonged segregation and specific distinctness. As the table of measurements shows, the second primary in *leucometopiis* is notched at a point varying from 51 to 57 mm. from the tip of the feather; while the corresponding measurement in five specimens of *caniceps*, are 64 to 69 mm.

The commonest forest Ground Dove is by no means easy to collect, and the fact that Beck secured a large series of this species in a comparatively short time, is an indication of its abundance. This fact, in connection with the bird's occurrence in the Tropical Zone renders it surprising that it has heretofore escaped collectors.

Evidently the bird's range is restricted by its choice of haunts, and when we learn from the collector the nature of the country in which it was found, we shall doubtless have some light on the reason for its extreme localization.

I am indebted to Mr. Outram Bangs for the loan of five specimens of

*Oreopelia caniceps*, from the collection of the Museum of Comparative Zoölogy, collected by Barbour and Brooks in the Cienaga de Zapata, Cuba, in April, 1915.

**Microsiphonorhis** gen. nov.

*Char. gen.*— Most nearly related to *Siphonorhis* ScL. (monotypic; type *S. americana*) but nasal tubes shorter, 1.5 mm. in height (in skin) as compared with 3 mm. in *Siphonorhis*; bill disproportionately smaller, its outline from above more regularly triangular, less shield-shaped, the upper mandible not convex in outline, the ridge on its cutting edge less developed; rectal bristles apparently actually stronger; tail squarer, less graduate; tarsus and toes disproportionately longer.

*Type* and only known species, *Microsiphonorhis brewsteri*.

**Microsiphonorhis brewsteri** sp. nov.

*Char. sp.*— In general coloration resembling *Siphonorhis americana* but paler throughout, throat and pectoral band white instead of buffy; tips of rectrices broader and pure white sharply defined from the black subterminal area, which is much broader; abdominal region buffy white instead of ochraceous-buff, more narrowly and less regularly barred; tertials narrowly tipped with white.

*Type.*— Collector's No. 7199; Brewster-Sanford Collection; ♀ ad. ("sexual organs swelling." R. H. B.); Túbano, Prov. Azua, Santo Domingo, W. I., Feb. 10, 1917; R. H. Beck.

*Range.*— Known only from the type locality.

*Description of type.*— General color of upperparts brownish gray; crown finely vermiculated with white and brownish, the lateral feathers with narrow black shaft-streaks, the central ones more broadly striped and margined with ochraceous-tawny; antorbital region bright ochraceous-tawny or rusty, barred with black, margined above by a narrow, partly concealed, light buff loreal streak, which extends backward above the eye where the slightly exposed black bases of the feathers break its continuity; auriculars cinnamon, vermiculated with black; nuchal band ochraceous-tawny streaked with black; scapulars velvety black, margined externally by light buff and rich ochraceous-buff, internal margins chiefly vermiculated with rusty, grayish and brownish; back and upper tail-coverts brownish gray vermiculated with buff, the interscapulars and upper tail-coverts with broad median, elongate black spots; exposed middle tail-feathers of the general color of the back, with five or six black bars or quadrate spots 7 or 8 mm. in width, and confined to the shaft portion of the feathers, the tips narrowly white; outer rectrices barred with black and ochraceous-buff, the latter areas mottled with blackish; a subterminal band black 10 to 12 mm. in width on the outer feathers, with slight traces of rusty; terminal band pure white, 5 mm. wide and sharply defined from the subterminal area; wing-quills fuscous, the outer webs of the primaries sharply barred with light ochraceous-buff, the inner webs with spots and incomplete light ochraceous-tawny bars; both webs of secondaries with broken ochraceous-buff bars; tertials vermiculated like the back and with narrow black shaft-streaks and terminal whitish spots; primary coverts fuscous, the outer web barred and margined with ochraceous-buff; remaining wing-coverts vermiculated with rusty with broad black shaft-streaks and rounded terminal buffy

white spots; under wing-coverts ochraceous-buff, the edge of the wing narrowly and unevenly barred with black; chin and malar region ochraceous-buff, barred with black; a distinct white throat-band; pectoral region barred and vermiculated with black and ochraceous-buff, the feathers with large white terminal spots 5 to 7 mm. in width, which form a band across the lower breast; abdominal region and under tail-coverts buffy white narrowly and inconspicuously barred with black; tarsi brownish, toes black (in skin), "iris brown; bill blackish" (R. H. B.).

*Comparative Measurements.*

		Wing	Tail	Tarsus	Middle Toe	Hind Toe	Culmen	Width of Bill at Nostril
<i>Microsiphonorhis brewsteri</i>	♀	119.5	94.5	23.5	20	6	8.5	7.5 mm.
<i>Siphonorhis americana</i>	♀	135	125	23 <sup>1</sup>	20 <sup>1</sup>	—	12.5	12 mm.

*Remarks.* — This exceedingly interesting addition to the known West Indian avifauna apparently represents the Jamaican genus *Siphonorhis* in Santo Domingo. In length of tarsus, as well as in general color pattern of the body plumage, both birds resemble *Nyctidromus*, of the mainland from Texas to Argentina, of which, indeed, they may be insular off-shoots. The unusual length of tarsus indicates that they share the terrestrial habits of *Nyctidromus*. *Siphonorhis* is now believed to be extinct, and the fact that *Microsiphonorhis*, although an inhabitant of the Tropical Zone of Santo Domingo, has not been taken before, indicates its extreme rarity.

It affords me unusual pleasure to name this fine species, known only from the type, in honor of Mr. Frederick F. Brewster, whose generous support of the Beck Expedition to littoral South America during the past three and a half years, has resulted in the formation of a collection which, in its field, is unapproached.

***Microligea montana* sp. nov.**

*Char. sp.*— Similar to *Microligea palustris* Cory but supraloral stripe, outer webs of second to fifth primaries (from without), and ends of three to four outer tail-feathers white; tail gray; underparts whiter; bill stouter.

*Type.*— Collector's No. 6978, Brewster-Sanford Collection, ♂ ad. ("sexual organs small" R. H. B.), Mt. Tina, Prov. Azua, Santo Domingo, W. I., Jan. 15, 1917; R. H. Beck.

*Range.*— Known only from Mt. Tina and Mt. Rucilla, Prov. of Azua, Santo Domingo.

*Description of Male.*— Crown, cheeks, nape, and foreback slate-gray; lores dusky, supraloral streak and spot on eyelid below, and sometimes above the eye, white; back olive-green; upper tail-coverts and exposed portions of central tail-feathers

<sup>1</sup> Male, *ex. Ridgway*, Birds N. and M. America.

slate-gray; inner webs of tail-feathers black; the three or four outer feathers with white tips averaging 15 mm. wide on the outer feather and decreasing in width on the succeeding feathers; outer vane of outer feather white for its terminal half; wing-quills black, the outer and inner primaries with black outer as well as inner vanes; the second to fourth (from without) with the outer vane white basally and extending as a narrow but distinct white margin nearly to the tip of the second to fourth primaries, appearing also subapically on the fifth primary; secondaries strongly margined externally with the color of the back, which is in sharp contrast to the black of the inner primaries; alula gray; primary coverts black, remaining coverts externally, the color of the back; under wing-coverts white; underparts white, grayish on the sides and flanks; "feet grayish; bill black, bluish below; iris brown" (R. H. B.).

*Description of Female.*—Indistinguishable in color from the male.

*Measurements.*

	Wing	Tail	Tarsus	Culmen
Five males	67.5-69	68-70	19-20	13.5-14.5 mm.
Five females	66-69	63.5-69.5	20-22	13-14 mm.

*Remarks.*—Of this second known species of its genus, Mr. Beck secured a large series on Mt. Tina and Mt. Rucilla, but his labels unfortunately do not give the altitudes at which the specimens were taken. Its abundance, in connection with the fact that it was not found in the lowlands, apparently indicates that it is confined to the upper zone of Santo Domingan life; and for this reason it has heretofore escaped collectors.

The collecting of a large series of *Microligea palustris* at the same localities in which *M. montana* was found, shows that these two species are not representative of one another.

***Loxia megaplaga* Riley.**

*Loxia megaplaga* Riley, Smiths. Misc. Coll., 66, No. 15, Dec. 1, 1916, p. 1 (El Rio, 4000 ft., Santo Domingo).

Beck secured thirty-one specimens of this species, heretofore known only from the type and a topotype, on Mt. Rucilla and Mt. Pelone (altitude not stated). Fifteen of these specimens are in streaked, immature plumage, and one of these, a female taken on Mt. Rucilla, March 5, has the tail only partly grown and is but a few days from the nest. The habit of early nesting evidently, therefore, persists in spite of the subtropical environment which this near relative of a boreal species now occupies.

Lacking a series of the European White-winged Crossbill (*Loxia bifasciata*), to which Mr. Riley (*l. c.*) compares this species, I am unable to add anything to his remarks on their relationships.

Dr. Abbott's discovery that a race of the White-winged Crossbill inhabits the pine forests of the higher mountains of Santo Domingo, is one of the ornithological sensations of recent years.

If the bird were a Red Crossbill, its presence, even in a West Indian island, would not be so surprising. This latter species nests as far south as the Alleghanies of northern Georgia, and its accidental occurrence in the Bermudas proves its ability to reach an island well removed from the nearest mainland.

The White-winged Crossbill is not known to nest south of northern New York, and, even in winter, it has not been recorded from south of Virginia. Its fortuitous occurrence in the West Indies is, therefore, not now to be expected. Nor does it seem probable that under existing climatic conditions, a bird of the Canadian Zone would thrive in the tropics, even at an altitude of 4000 feet, if introduced there.

If this be true, it follows that *Loxia* has adapted itself to life in the Subtropical Zone through, not a sudden, but a gradual climatic change. Such a change we know to have accompanied the wane of the last Glacial Period. Perhaps, therefore, we are warranted in assuming that the climatic conditions which brought the Musk Ox to Kentucky, the Walrus to the vicinity of Charleston, South Carolina, and the Great Auk as far south as Ormond, Florida, are also responsible for the original occurrence of the White-winged Crossbill in Santo Domingo.

The pines which had preceded it, and which may also be considered as boreal invaders forced southward by the Ice Age, offered the food supply the bird's habits require, and in its insular home it has been stranded, after the causes to which its presence is due have disappeared.

It is not implied that the existence of *Loxia* in the greater Antilles indicates a land connection between these islands and the southeastern United States. We have seen that the Red Crossbill is of recent occurrence in Bermuda, and it is therefore well within the bounds of probability to believe that during the time when the Glacial Period forced the White-winged Crossbill far below its present range in North America, it might have occurred fortuitously in Santo Domingo.

The case is, in a measure, paralleled by that of the Andean Horned Lark (*Otocoris alpestris peregrina*). Here we have a species of unquestionable boreal origin confined to the Savanna of Bogotá, in the Temperate Zone of the Colombian Andes. Its nearest relative is found in Mexico. It is not conceivable that the pioneer ancestors of the Colombian race can have crossed the wide area lying between that country and Colombia, and, as with the Santo Domingan Crossbill, we are forced to conclude that the original introduction took place when different climatic conditions prevailed in the areas concerned.

The fact that *Loxia megaplaga* is more nearly related to the European than to the American White-winged Crossbill, does not, of course, imply that it has descended directly from that species. Its characters of comparatively large bill and short wings are shown by many island-inhabiting races, and they doubtless indicate parallelism in development rather than direct descent from the physically nearest form.

### ***Brachyospiza capensis antillarum* Riley.**

*Brachyospiza antillarum* RILEY, Smiths. Misc. Coll., 56, No. 15, Dec. 1, 1916, p. 2 (Constanza, 5000 ft., Santo Domingo).

Mr. Beck secured thirty-eight specimens of this recently described form on Mt. Tina, Mt. Rucilla and at Las Canitas (altitude not stated).

This excellent series, in comparison with a very large number of specimens of *Brachyospiza capensis peruviana* from Colombia and Costa Rica, shows that while *antillarum* is a strongly marked insular race, the differences between it and the mainland bird are practically bridged by individual variation. It should, therefore, evidently stand as a subspecies of *Brachyospiza capensis*, its relationships to the ancestral type being more exactly expressed by a trinomial than by a binomial.

It is interesting to observe that the gradual increase in the amount of black on the throat, which accompanies the extension of the range of this species from the south northward, reaches its maximum development in the Santo Domingan race.

In nearly all the Brewster-Sanford specimens this band is complete, a condition rarely shown in mainland examples. It is most closely approached by specimens in the American Museum from Costa Rica and Chiriqui, and this fact gives support to the obvious assumption that the Santo Domingan bird was derived from Central American stock. The tail in the Santo Domingan specimens is, however, longer than in Central American specimens and equals in length the tail of Peruvian birds.

The occurrence of this species in Santo Domingo raises several interesting questions. It is obviously restricted to the mountains where it occupies the first life zone above the Tropical Zone. Dr. Abbott's specimens were taken at an altitude of 4000 and 5000 feet, and the fact that a bird which is so common and so easily observed was not discovered prior to his visit, argues that it is not found in the lowlands. In Central America, as well as in Colombia, *Brachyospiza* is also characteristic of the second or Subtropical Zone, below which it rarely descends.

The presence of this genus in Santo Domingo may be explained in one

of two ways. It may have entered the island during a past land connection with Central America, or it may be of fortuitous occurrence. If the present climatic conditions existed during the period of supposed continental connection, we may assume that the land forming this connection reached the altitude of the zone below which, both in Santo Domingo and Central America, *Brachyspiza* is not found. On the other hand, the apparent absence of *Brachyspiza* from Jamaica and Cuba argues against its reaching the West Indies over a land bridge. In short, the case presents one of those fascinating problems in distribution which stimulate speculation even if they defy solution.